



March 28, 2010

Mr. Edward Hanlon
Designated Federal Officer
EPA Science Advisory Board (1400F)
US Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Science Advisory Board Staff Office; Notification of a Public Meeting of the Science Advisory Board; Environmental Engineering Committee Augmented for the Evaluation and Comment on EPA's Proposed Research Approach for Studying the Potential Relationships Between Hydraulic Fracturing and Drinking Water Resources

This statement is submitted on behalf of the Independent Petroleum Association of America (IPAA) and Energy In Depth (EID) with regard to the "Scoping Materials for Initial Design of EPA Research Study on Potential Relationships Between Hydraulic Fracturing and Drinking Water Resources" (Scoping Materials) document of March 2010.

The IPAA represents the thousands of independent oil and natural gas producers that develop 90 percent of US wells and produce over 80 percent of US natural gas. Approximately 90 percent of these wells now require the use of hydraulic fracturing. EID is a coalition of national, regional and state trade association as well as oil and natural gas companies that is dedicated to providing information on the environmental issues associated with the development of these resources.

The Scoping Materials document raises a broad array of issues for possible research. In our view, however, it goes well beyond relationships between hydraulic fracturing and drinking water. As the Scoping Materials note, Congress requests "... the Agency to carry out a study on the relationship between hydraulic fracturing and drinking water..." The Scoping Materials expansion of this mandate bring into play consideration of a Life Cycle Assessment, air emissions issues, community health and environmental justice issues and many others that would distract the study from its Congressional intent.

We believe that the study needs to be framed around a key threshold question – whether the regulatory structures effectively manage the environmental risks of the fracturing process. If these risks are well managed, the other questions are meaningless. If the regulatory structures prevent pathways to drinking water, there is no risk. The Scoping Materials document fails to reflect this reality. For example, of the 28 items listed under the "Potential Elements of Research Study", no item is included related to evaluating the effectiveness of the regulations to prevent risks to drinking water.

Consequently, we recommend that the first focus of the research study should include the involvement of the state regulatory agencies that have designed and implemented programs to

protect ground water. These agencies bear the principal responsibility to protect drinking water supplies. As the Ground Water Protection Council stated in its report, “State Oil And Natural Gas Regulations Designed To Protect Water Resources”:

State regulation of oil and natural gas exploration and production activities are approved under state laws that typically include a prohibition against causing harm to the environment. This premise is at the heart of the regulatory process. The regulation of oil and gas field activities is managed best at the state level where regional and local conditions are understood and where regulations can be tailored to fit the needs of the local environment. Hence, the experience, knowledge and information necessary to regulate effectively most commonly rests with state regulatory agencies.

The state regulatory agencies regularly must assure that their programs protect the environment, honing them as necessary to assure they reflect new information and technologies.

For example, the New York State Department of Environmental Conservation released a Draft Supplemental Generic Environmental Impact Statement (dSGEIS), dated September 2009, regarding its analysis of the risks and regulatory controls of natural gas development in the Marcellus Shale formation using horizontal drilling and high-volume hydraulic fracturing (HF) techniques. It states:

The regulatory discussion in Chapter 5 concludes that adequate well design prevents contact between fracturing fluids and fresh ground water sources, and text in Chapter 6 along with Appendix 11 on subsurface fluid mobility explains why ground water contamination by migration of fracturing fluid is not a reasonably foreseeable impact.

This noteworthy result demonstrates the significant importance of a regulatory system designed to impose barriers between natural gas production well bores and ground water.

Other analyses of different pathways that might affect drinking water conclude that such pathways pose no threat. For example, in its report, “Human Health Risk Evaluation For Hydraulic Fracturing Fluid Additives Marcellus Shale Formation, New York”, Gradient determined that:

The results of our conservative analysis indicate that potential human health risks associated with model HF fluid additives and measured flowback constituents *via* drinking water (and other household uses of water) are expected to be insignificant, and even *de minimis*, as defined by agency-based guidelines. None of the conservatively-modeled concentrations in shallow groundwater and surface water exceeded a risk-based drinking water concentration. Furthermore, our analysis confirms that migration of HF fluid additives from the Marcellus Shale up through overlying bedrock to a surface aquifer is an implausible contamination pathway.

Taken together, these assessments frame the fundamental issue that the EPA Research Study must first address – the effectiveness of existing regulatory systems in preventing the movement of hydraulic fracturing fluid to drinking water. Without this information, no testing plan would be well targeted. With it, chemical analysis, modeling, field studies and technology evaluations can be carefully crafted to be meaningful and cost effective.

We appreciated the opportunity to provide input to the development of the EPA Research Study and will continue to participate in its execution. If additional information is required, please contact Lee Fuller at 202-857-4731 or at lfuller@ipaa.org.

Sincerely,

Lee O. Fuller